

# Notice of Allowability

Application No.

09/937,382

Examiner

Jon Chang

Applicant(s)

GRANLUND, GOSTA

Art Unit

2623

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to originally filed application and amendment, 9/25/01.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ The drawings filed on 25 September 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Jon Chang  
Primary Examiner

***Reasons for Allowance***

1. The following is an examiner's statement of reasons for allowance:

Claim 1, representative of the invention, requires generating a percept vector. The specification provides a definition of the percept vector on page 4. The claimed percept vector is interpreted in light of this definition. Subsequent to transforming the percept vector into a feature vector, the claim also requires generating a response array by multiplying the feature vector by a trained linkage matrix modeling a percept-response system. The specification defines the response array starting on page 8, including the linkage matrix modeling the percept response system. The claimed limitation is interpreted in light of this disclosure. These features are neither disclosed nor suggested by the prior art of record. Claims 16 and 18 recite similar limitations. Claims 2-15 depend from claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***References Cited***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,282,510 to Southgate discloses a linear detector array having overlapping segments corresponding to adjacent detector elements.

U.S. Patent 5,569,907 to Meunier discloses apparatus for converting an optical image of an object into a digital representation employing a sensor array, the sensors having overlapping fields of view.

U.S. Patent 5,726,443 to Immega et al. discloses a vision system and proximity detector which utilizes an array or area sensor.

U.S. Patent 5,901,244 to Souma et al. discloses feature extraction system which utilizes a feature vector in producing a local covariance matrix.

U.S. Patent 5,963,667 to Hashimoto et al. discloses a multiplexing optical system for transforming input information into feature vectors. This patent is considered one of the closer prior art to the instant invention. However, the patent does not disclose the percept vector and generating the response array as claimed.

U.S. Patent 6,269,354 to Arathorn discloses general purpose e-circuits capable of translation-tolerant recognition, which utilizes percepts in an input field.

U.S. Patent 6,751,354 to Foote et al. discloses utilizing feature vectors and a covariance matrix.

The article, "The Design of Point Detector Arrays, I" by Gaardner teaches the design of a detection system to optimally detect known signal fields.


The article, "A Simultaneous High-Speed Measuring System of Multiple Points" by Hori et al. teaches using a sensor array to measure multiple points. This paper is considered one of the closer prior art to the instant invention (note for example section 2 and Fig.1). However, the paper does not disclose the percept vector and generating the response array as claimed.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jon Chang  
Primary Examiner  
Art Unit 2623

Jon Chang  
September 4, 2004